TITLE

AKTIVITAS ANTIBAKTERI EKSTRAK ETANOL DAGING BIJI MELINJO (GNETUM GNEMON L.) TERHADAP BAKTERI METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)

ABSTRACT

Penelitian aktivitas antibakteri ekstrak etanol daging biji melinjo (Gnetum gnemon L.) terhadap bakteri Methicillin Resistant Staphylococcus aureus (MRSA) telah dilakukan. Ekstraksi daging biji melinjo dilakukan dengan menggunakan metode maserasi dengan pelarut etanol 70% yang menghasilkan randemen sebesar 12,5%. Uji aktivitas antibakteri dilakukan menggunakan metode difusi kertas cakram (Kirby-Bauer) dengan variasi konsentrasi ekstrak sebesar 5; 10; 15; 20; dan 25% b/v. Hasil karakterisasi simplisia diperoleh kadar air sebesar 7,3%, kadar abu total 4,17%, kadar sari larut air 6,7%, dan kadar sari larut etanol 22,6%. Sedangkan hasil karakterisasi ekstrak diperoleh kadar air sebesar 0,31%, kadar abu total 0,67%, kadar sari larut air 28%, dan kadar sari larut etanol 41,3%. Uji fitokimia menunjukkan bahwa ekstrak etanol daging biji melinjo mengandung senyawa alkaloid, flavonoid, tanin, saponin, dan triterpenoid. Hasil uji aktivitas antibakteri menunjukkan bahwa ekstrak etanol daging biji melinjo memiliki potensi dalam menghambat pertumbuhan bakteri MRSA. Aktivitas tertinggi diperoleh pada konsentrasi 25% b/v ekstrak dengan diameter zona hambat sebesar 13,3 mm.
Kata kunci: ekstrak etanol daging biji melinjo, Gnetum gnemon L., Methicillin resistant Staphylococcus aureus, MRSA.

ABSTRACT
Antimicrobial activity of ethanol extract of melinjo seed (Gnetum gnemon L.) against Methicillin Resistant Staphylococcus aureus (MRSA) bacteria had been conducted. Extraction of the melinjo seed compound was carried out using maseration method with ethanol 70% showed that yield 12,5%. Antimicrobial activity was carried out by disc paper diffusion method (Kirby-Bauer) using varitation of extract by concentration of 5; 10; 15; 20; dan 25% w/v. Simplicia of the seed contain 7,3%, 4,17%, 6,7%, and 22,6% of water, total ash, water soluble extract, and ethanol soluble extract respectively. Meanwhile the ethanol extract contain 0,31%, 0,67%, 28%, and 41,3% of water, total ash water soluble extract, and ethanol soluble extract respectively. Phytochemical test showed that the ethanol extract of melinjo seed contains alkaloids, flavonoids, tannins, saponins, and triterpenoid compounds. Antibacterial activity assays showed that ethanol extract of melinjo seed had the potential to inhibit the growth of MRSA where the highs activity found at concentration of 25% w/v with diameter inhibition zone at 13,3 mm.
Key words: ethanol extract of melinjo seed, Gnetum gnemon L., Methicillin Resistant Staphylococcus aureus, MRSA.